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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	Ralf Aumueller, *et al.*
Serial No. 10/816,448	Filing Date: April 1, 2004
Title of Application:	Compressed Air Processing System
Confirmation No. 9254	Art Unit: 3683
Examiner	Mariano Ong Sy

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Transmittal of Appeal Brief

Dear Sir:

Having filed a Notice of Appeal to the Board of Patent Appeals and Interferences on March 3, 2006, Applicant hereby transmits its Appeal Brief.

1. **Appeal Brief.** Transmitted herewith is the Appeal Brief with respect to the Notice of Appeal filed on March 3, 2006 in the above-captioned matter.

2. **Time To File**. The Notice of Appeal in the above-captioned matter was filed on March 3, 2006. This Appeal Brief is timely filed within two months thereafter, without extensions of time.

Certificate of Mailing: I hereby certify that this correspondence is today being deposited with the U.S. Postal Service as FIRST CLASS MAIL in an envelope addressed to: Mail Stop Appeal Brief - Patents; Commissioner for Patents; P.O. Box 1450; Alexandria, VA 22313-1450.

March 15, 2006

Tamara L. Millikan

3. **Fee for Filing Appeal Brief**. Pursuant to 37 C.F.R. 41.20(b)(2), the fee for filing the Appeal Brief is $500.00.

4. **Fee Payment**. Attached is a credit card authorization in the amount of $500.00. This is also a petition and a request to charge to Account No. 19-4516 for any additional extension and/or fee as may be required or credit for any excess fee paid.

Respectfully submitted,

March 15, 2006

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Appeal Brief Under 37 CFR §41.37

Dear Sir:

A Notice of Appeal from the final rejection of Claims 1-20, all pending claims of U.S. Patent Application No. 10/816,448, having been previously filed on March 3, 2006, Applicant now files its Appeal Brief. A Claims Appendix is submitted herewith, as are Appendices related to evidence previously submitted and decisions related to the case.

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March 15, 2006

Tamara L. Millikan

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(i) Real Party In Interest

The real party in interest is Haldex Brake Products GmbH, assignee of the present patent application.

(ii) Related Appeals and Interferences

There are no related Appeals or Interferences.

(iii) Status Of Claims

Claims 1-20, all pending claims of the present application, stand rejected and are the subject of the instant Appeal. A copy of each of these claims is attached hereto in the Claims Appendix.

(iv) Status Of Amendments

There are no pending or unentered Amendments. On January 23, 2006, Applicant filed a Response to the Final Office Action dated November 3, 2005. The amendments contained in Applicant's Response were entered.

(v) Summary Of Claimed Subject Matter

Claims 1 and 11 are the independent claims.

Independent Claim 1

Claim 1 is directed to a compressed air processing system that includes an inlet connection (2), which is designed and arranged to be connected to a conduit (4) connected to a compressor (3), a pressure control unit (15), a multi-circuit protection valve, a plurality of outlet connections (12), each of which is designed and arranged to be connected to a circuit (I, II, III, IV), a parking brake connection (22), which is designed and arranged to be connected to a conduit (23) connected to a parking brake cylinder (24), and an electronic control unit (19), which includes an electric input connection (35) for a control signal. *See, e.g.,* Spec. ¶¶ 00022, 00023, 00025-00027 and Fig. 1. The compressed air processing system also includes a valve arrangement (26) which is designed and arranged to aerate and lock the parking brake connection (22) in a controlled way due to a signal being generated by the electronic control unit (19), and which is also designed and arranged to deaerate the parking brake connection (22) due to a signal being generated by the electronic control unit (19). *See, e.g.,* Spec. ¶¶ 00025-00030 and Fig. 1. The compressed air processing system further includes a common housing (1) on which the inlet connection (2), the plurality of outlet connections (12) and the parking brake connection (22) are arranged, and within which the pressure control unit (15), the multi-circuit protection valve, the electronic control unit (19) and the valve arrangement (26) are disposed. *See, e.g.,* Spec. ¶¶ 00022, 00023, 00025-00027 and Fig. 1.

Independent Claim 11

Claim 11 is directed to a compressed air processing system that includes a plurality of circuits (I, II, III, IV), a compressor (3), a first conduit (4), which is connected to the compressor (3), an inlet connection (2), which is designed and arranged to be connected to the first conduit (4), a pressure control unit (15), a plurality of outlet connections (12), each of which is designed and arranged to be connected to one of the circuits (I, II, III, IV), a parking brake cylinder (24), a second conduit (23), which is designed and arranged to be connected to the parking brake cylinder (24), a parking brake connection (22), which is designed and arranged to be connected to the second conduit (23), and an electronic control unit (19), which includes an electric input connection (35) for a control signal. *See, e.g.,* Spec. ¶¶ 00022, 00023, 00025-00027 and Fig. 1. The compressed air processing system also includes a valve arrangement (26) which is designed and arranged to aerate and lock the parking brake connection (22) in a controlled way due to a signal being generated by the electronic control unit (19), and which is also designed and arranged to deaerate the parking brake connection (22) due to a signal being generated by the electronic control unit (19). *See, e.g.,* Spec. ¶¶ 00025-00030 and Fig. 1. The compressed air processing system further includes a common housing (1) on which the inlet connection (2), the plurality of outlet connections (12) and the parking brake connection (22) are arranged, and within which

the pressure control unit (15), the electronic control unit (19) and the valve arrangement (26) are disposed. *See, e.g.,* Spec. ¶¶ 00022, 00023, 00025-00027 and Fig. 1.

(vi) Grounds Of Rejection To Be Reviewed On Appeal

Claims 1-20 stand rejected under 35 U.S.C. §102(b) as being anticipated by Blanz (DE 19638226 C1).

Claims 1-20 stand rejected under 35 U.S.C. §102(e) as being anticipated by Hilberer (US 6540308 B1).

(vii) Argument

Claims 1-20 of the present invention require, among other limitations thereof, a valve arrangement designed and arranged to aerate and lock and to deaerate the parking brake connection due to a signal being generated by the electronic control unit. The present invention also requires that the pressure control unit, the multi-circuit protection valve, the electronic control unit and the valve arrangement are disposed within a common housing of the compressed air processing system (claims 1-10), or that the pressure control unit, the electronic control unit and the valve arrangement are disposed within a common housing of the compressed air processing system (claims 11-20). As such, all claims of the present invention require provision of a valve arrangement, which is designed and arranged to aerate and lock and to deaerate the

parking brake connection due to a signal being generated by the electronic control unit, that is disposed within a common housing.

Applicant respectfully submits that neither of the cited prior art references discloses, teaches or suggests at least this novel aspect of the invention.

Blanz fails to disclose, teach or suggest the above-identified limitations of the present invention, as claimed. It is clearly seen from Figure 1 of this reference that the hand brake valve 31, which controls the parking brake, is arranged outside the common housing 1 of the compressed air processing unit, meaning that housing 1 is only connected by a line to hand brake valve 31 as already known in the prior art. The same thing can be seen from the embodiment of Figure 2. Here also, the hand brake valve 31 is not included in the common housing 1 but connected by a line to reservoir 27" via a separation valve 41. Consequently, Blanz does not disclose, teach or suggest in any way that the various control components of the system (such as the recited valve arrangement) are disposed within a common housing, as is required by all claims as amended.

In the advisory action mailed February 3, 2006, the Examiner asserts that "Blanz (DE 196 38 226) disclosed, as shown in fig. 2, valve 23' that controls the hand brake

valve 31 is located within a common housing 1." However, while Applicant notes that valve 23" is located within the common housing 1, Applicant respectfully submits that this valve, valve 23", can not be considered to be the claimed "valve arrangement." This is true because all pending claims require that the recited "valve arrangement" be designed and arranged to aerate and lock the parking brake connection in a controlled way due to a signal being generated by the electronic control unit, and also be designed and arranged to deaerate the parking brake connection due to a signal being generated by the electronic control unit, and because valve 23" is not so designed and arranged. However, valve 23" is used for a supply of a constant pressure (supply valve) for reservoir 27 and hand brake valve 31. Accordingly, valve 23" only shows arrows with directions for supplying, none for deaerating. Valve 23" shows a first and second state wherein line 38 is connected with valve 31. In the third state such connection is interrupted -- no connection is built with the environment to deaerate. Thus, Blanz does not disclose, teach or suggest in any way a valve arrangement (i) designed and arranged to aerate and lock the parking brake connection in a controlled way due to a signal being generated by the electronic control unit, (ii) designed and arranged to deaerate the parking brake connection due to a signal being generated by the electronic control unit, and (iii) which is contained within a common housing on which or within which the various other recited elements are disposed.

According to Blanz, a common conduit 38 for different circuits is supplied by air under pressure. Any valve located upstream such conduit does not matter for controlling park brake 34 due to the fact that any valve influencing the pressure state in conduit 38 would lead to a change of the pressure state in each of the circuits. Downstream between conduit 38 and park brake actuator 34, two different valves (i.e., pressure safety valve 23" and park valve 31) are located.

Among such two valves, pressure safety valve 23" is not used to selectively operate and release a park brake. However, as will be known by a person with ordinary skill in the art, pressure safety valve 23" is used to guarantee a pressure supply to the outlet ports of the pressure safety valve which is conduit 26" and the conduit leading to the park valve 34. Accordingly, the pressure safety valve 23" cannot be seen as "valve arrangement being designed and arranged to deaerate said parking brake connection due to a signal being generated by said electronic control unit".

However, for such function according to Blanz the park valve 31 is used. Park valve 31 is not located within the common housing but outside the common housing which is indicated by reference numeral 1 in Figs. 1 and 2. Accordingly, the above-identified novel aspect of the claims cannot be taken or taught from Blanz.

Similar to Blanz discussed above, Hilberer also fails to disclose or teach the above-identified limitations of the invention as claimed. Figure 1 and Figure 2 do not show any connection to a parking brake. Only the embodiment of Figure 3 shows a connecting line to a parking brake (FBA). In the housing of the processing unit there is only included a check valve 11, which obviously is not able to control the parking brake. Consequently, Hilberer does not disclose, teach or suggest to incorporate the various components of a compressed air processing unit (including control valve arrangements) inside a common housing.

In the advisory action mailed February 3, 2006, the Examiner asserts that "Hilberer (US 6,540,308) disclosed, as shown in fig. 3, valve 8a that controls parking brake system FBA is located within a common housing 3" However, while Applicant notes that valve 8a is located within the common housing 3, Applicant respectfully submits that this valve, valve 8a, can not be considered to be the claimed "valve arrangement." This is true because all pending claims require that the recited "valve arrangement" be designed and arranged to aerate and lock the parking brake connection in a controlled way due to a signal being generated by the electronic control unit, and also be designed and arranged to deaerate the parking brake connection due to a signal being generated by the electronic control unit, and because valve 8a is not so designed and arranged. Thus, Hilberer does not disclose, teach or suggest in any

way a valve arrangement (i) designed and arranged to aerate and lock the parking brake connection in a controlled way due to a signal being generated by the electronic control unit, (ii) designed and arranged to deaerate the parking brake connection due to a signal being generated by the electronic control unit, and (iii) which is contained within a common housing on which or within which the various other recited elements are disposed.

Hilberer shows a common air supply conduit 32 for several circuits. Any valve located upstream such pressure supply conduit 32 cannot be used to aerate and lock and to deaerate the parking brake connection due to the fact that any change of the pressure conditions by such valve would influence the pressure conditions in any circuit. According to Hilberer, between the supply conduit 32 and the park brake FBA only check valve 11 and pressure safety valve 8a are located. As explained above in connection with Blanz, the pressure safety valve 8a is not appropriate for aerating and locking a park brake. For a person with ordinary skill in the art, it is also obvious that a check valve 11 is not suitable for selectively aerating and locking a park brake.

Accordingly, Hilberer does not show a valve arrangement which is designed and arranged to aerate and lock and to deaerate a park brake located within a common housing. The system disclosed by Hilberer can be used to supply circuits K1 to K4 and

FBA with air under pressure wherein outside the housing there will be conduits leading to a reservoir for the park brake and a downstream park valve for selectively operating the park brake. Accordingly, the above-identified novel aspect of the claims cannot be taken or taught from Hilberer.

Applicant respectfully submits that the Examiner has not provided any reasonable or sound ground as to why the claims of the invention do not fulfill the requirements for patentability based on the cited prior art references. As noted above, the novel aspect of the claimed invention to which the references fail to disclose or teach is that the valve arrangement (which has very specific properties) and other control components (such as the pressure control unit, the multi-circuit protection valve, and the electronic control unit) of the system are disposed within a common housing. As discussed above, neither of the references disclose or teach that the valve arrangement, which is designed and arranged to aerate and lock and to deaerate the parking brake connection due to a signal being generated by the electronic control unit, is disposed within a common housing of the system.

Conclusion

For the foregoing reasons, Applicant respectfully submits that the claimed invention embodied in each of claims 1-20 is patentable over the cited prior art. As

such, Applicant respectfully requests that the rejections of each of claims 1-20 be reversed and the Examiner be directed to issue a Notice of Allowance allowing each of claims 1-20.

Respectfully submitted,

March 15, 2006

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Claims Appendix
to Appeal Brief Under 37 CFR §41.37
Serial No. 10/816,448

1. A compressed air processing system, comprising:

an inlet connection, said inlet connection being designed and arranged to be connected to a conduit being connected to a compressor;

a pressure control unit;

a multi-circuit protection valve;

a plurality of outlet connections, each of said outlet connections being designed and arranged to be connected to a circuit;

a parking brake connection, said parking brake connection being designed and arranged to be connected to a conduit being connected to a parking brake cylinder;

an electronic control unit, said electronic control unit including an electric input connection for a control signal;

a valve arrangement,

said valve arrangement being designed and arranged to aerate and lock said parking brake connection in a controlled way due to a signal being generated by said electronic control unit, and

said valve arrangement being designed and arranged to deaerate said parking brake connection due to a signal being generated by said electronic control unit; and

a common housing on which said inlet connection, said plurality of outlet connections and said parking brake connection are arranged and within which said pressure control unit, said multi-circuit protection valve, said electronic control unit and said valve arrangement are disposed.

2. The compressed air processing system of claim 1, wherein said valve arrangement includes a first switching valve and a second switching valve, said first switching valve and said second switching valves being designed and arranged to be

separately controllable, said first switching valve having a passage position and a locking position and said second switching valve having a locking position and a deaerating position.

3. The compressed air processing system of claim 1, wherein said valve arrangement includes a 3/2 way valve, said 3/2 way valve having its own deaerating system.

4. The compressed air processing system of claim 1, further comprising a pressure sensor, said pressure sensor being arranged between said valve arrangement and said parking brake connection, said pressure sensor being designed and arranged to produce a signal to be transmitted to said electronic control unit.

5. The compressed air processing system of claim 1, further comprising a central aerating system for all circuits and a conduit leading to said parking brake connection, said valve arrangement being located in said conduit leading to said parking brake connection, said valve arrangement being connected to said central aerating system in a way to bypass overflow valves of other circuits.

6. The compressed air processing system of claim 1, further comprising a central aerating system for all circuits and a conduit leading to said parking brake connection, said valve arrangement being arranged in said conduit, said conduit being connected to said central aerating system downstream of a pressure protection valve of a different circuit.

7. The compressed air processing system of claim 1, wherein said valve arrangement includes at least one switching valve being designed and arranged to be pre-controlled by at least one solenoid valve.

8. The compressed air processing system of claim 1, wherein said valve arrangement includes at least one directly controlled solenoid valve.

9. The compressed air processing system of claim 1, wherein said valve arrangement includes two separately controllable switching valves, said switching valves being arranged in series with respect to a conduit leading to said parking brake connection.

10. The compressed air processing system of claim 1, further comprising a mechanical spring, said mechanical spring being designed and arranged to determine a position in which said parking brake connection is deaerated.

11. A compressed air processing system, comprising:

a plurality of circuits;

a compressor;

a first conduit, said first conduit being connected to said compressor;

an inlet connection, said inlet connection being designed and arranged to be connected to said first conduit;

a pressure control unit;

a plurality of outlet connections, each of said outlet connections being designed and arranged to be connected to one of said circuits;

a parking brake cylinder;

a second conduit, said second conduit being designed and arranged to be connected to said parking brake cylinder;

a parking brake connection, said parking brake connection being designed and arranged to be connected to said second conduit;

an electronic control unit, said electronic control unit including an electric input connection for a control signal;

a valve arrangement,

said valve arrangement being designed and arranged to aerate and lock said parking brake connection in a controlled way due to a signal being generated by said electronic control unit, and

said valve arrangement being designed and arranged to deaerate said parking brake connection due to a signal being generated by said electronic control unit; and

a common housing on which said inlet connection, said plurality of outlet connections and said parking brake connection are arranged and within which said pressure control unit, said electronic control unit and said valve arrangement are disposed.

12. The compressed air processing system of claim 11, wherein said valve arrangement includes a first switching valve and a second switching valve, said first switching valve and said second switching valves being designed and arranged to be separately controllable, said first switching valve having a passage position and a locking position and said second switching valve having a locking position and a deaerating position.

13. The compressed air processing system of claim 11, wherein said valve arrangement includes a 3/2 way valve, said 3/2 way valve having its own deaerating system.

14. The compressed air processing system of claim 11, further comprising a pressure sensor, said pressure sensor being arranged between said valve arrangement and said parking brake connection, said pressure sensor being designed and arranged to produce a signal to be transmitted to said electronic control unit.

15. The compressed air processing system of claim 11, further comprising a central aerating system for all circuits and a conduit leading to said parking brake connection,

said valve arrangement being located in said conduit leading to said parking brake connection, said valve arrangement being connected to said central aerating system in a way to bypass overflow valves of other circuits.

16. The compressed air processing system of claim 11, further comprising a central aerating system for all circuits and a conduit leading to said parking brake connection, said valve arrangement being arranged in said conduit, said conduit being connected to said central aerating system downstream of a pressure protection valve of a different circuit.

17. The compressed air processing system of claim 11, wherein said valve arrangement includes at least one switching valve being designed and arranged to be pre-controlled by at least one solenoid valve.

18. The compressed air processing system of claim 11, wherein said valve arrangement includes at least one directly controlled solenoid valve.

19. The compressed air processing system of claim 11, wherein said valve arrangement includes two separately controllable switching valves, said switching valves being arranged in series with respect to a conduit leading to said parking brake connection.

20. The compressed air processing system of claim 11, further comprising a mechanical spring, said mechanical spring being designed and arranged to determine a position in which said parking brake connection is deaerated.

Evidence Appendix
to Appeal Brief Under 37 CFR §41.37
Serial No. 10/816,448

No evidence of any kind, including evidence submitted under 37 CFR 1.130, 1.131 or 1.132, has been entered by the Examiner and relied upon by Appellant in the appeal.

Related Proceedings Appendix
to Appeal Brief Under 37 CFR §41.37
Serial No. 10/816,448

There are no related Appeals or Interferences. As such, there are no decisions rendered by a court or the Board in any such Appeals or Interferences.